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Section I. Amendments to the Claims

Please amend claims 40-45, 47, 49, 51, 61 and 63, and cancel claims 52-54, as set out below in the listing of claims 1-63 of the application.

1-39. (Cancelled)

40. (Currently Amended) A microelectronic device structure comprising:

a silicon substrate comprising at least one additional layer selected from the group consisting of a bottom electrode layer, a diffusion barrier layer, an insulating layer and a buffer layer;

a ferroelectric oxide film material positioned over the silicon substrate, wherein the ferroelectric oxide material has a top surface and vicinity thereunder that is substantially stoichiometrically complete in oxygen concentration;

a top electrode layer comprising a first layer and a second layer fabricated from an oxygen diffusion barrier material, wherein the first layer top electrode layer directly contacts the a top surface of the ferroelectric oxide film material and the second layer directly contacts the first layer, wherein said top surface and vicinity thereunder of the ferroelectric oxide film material is substantially stoichiometrically complete in oxygen concentration, and wherein the first layer of the top electrode comprises a material selected from the group consisting of material selected from Ir, Ir oxides, Rh, Rh oxides, and compatible mixtures thereof and alloys of the foregoing and the second layer of the top electrode is selected from the group consisting of Ir, Rh and mixtures thereof, and wherein the total thickness of the top electrode is in a range from about 100 nm to about 500 nm.

41. (Currently Amended) The microelectronic device structure according to claim 40, wherein said ferroelectric film comprises an oxide perovskite or layered structure perovskite.

42. (Currently Amended) The ~~A~~ microelectronic device structure according to claim 40, wherein said ferroelectric film comprises a material selected from the group consisting of lead zirconium titanate, barium and/or strontium titanates, and strontium bismuth tantalates.

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43. (Currently Amended) The A microelectronic device structure according to claim 40, wherein said ferroelectric film comprises a lead zirconium titanate material.
44. (Currently Amended) The A microelectronic device structure according to claim 40, wherein said ferroelectric film comprises a barium and/or strontium titanate material.
45. (Currently Amended) The A microelectronic device structure according to claim 40, wherein said ferroelectric film comprises a strontium bismuth tantalate material.
46. (Cancelled)
47. (Currently Amended) The A microelectronic device structure according to claim 40, wherein said first layer of the top electrode layer comprises is formed of an Ir oxide material.
48. (Cancelled)
49. (Currently Amended) The A microelectronic device structure according to claim 40, wherein said second layer of the top electrode layer is formed of is formed of Ir.
50. (Cancelled)
51. (Currently Amended) The A microelectronic device structure according to claim 40, wherein the top electrode layer is formed of a first layer of IrO₂ and a second layer of Ir or IrO₂.
52. (Cancelled)
53. (Cancelled)
54. (Cancelled)
- 55-60. (Cancelled)
61. (Currently Amended) The A microelectronic device structure according to claim 40, wherein said second layer of the top electrode layer comprises is formed of Rh.

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62. (Cancelled)

63. (Currently Amended) A ferroelectric or high ϵ capacitor comprising:

a bottom electrode layer formed of a conductive material silicon substrate comprising at least one additional layer selected from the group consisting of a bottom electrode layer, a diffusion barrier layer, an insulating layer and a buffer layer;

a thin film of an ferroelectric oxide material positioned over the bottom electrode, wherein the thin film of ferroelectric oxide material has a top surface that is substantially stoichiometrically complete in oxygen concentration, wherein said ferroelectric oxide material comprises a material selected from the group consisting of lead zirconium titanate, barium and/or strontium titanates, and strontium bismuth tantalates; and

a top electrode layer comprising a first layer and a second layer, wherein the first layer directly contacts contacting the top surface of the thin film of ferroelectric oxide material and the second layer directly contacts the first layer, wherein the first layer which is formed of a material selected from the group consisting of Ir, Ir oxides, Rh, Rh oxides, and compatible mixtures and alloys thereof, and the second layer is formed of a material selected from the group consisting of Ir, Rh and mixtures thereof, wherein the total thickness of the top electrode is in a range from about 100 nm to about 500 nm, and wherein the oxygen concentration of the ferroelectric oxide film is maintained during through the formation of the top electrode without the need for post-deposition annealing in oxygen.